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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			POLTORAK, PIOTR	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/029,426	Applicant(s) SCHMIDT ET AL.	
	Examiner Peter Poltorak	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 32-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 25-31 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-24 and 32-74, drawn to a network architecture that includes access control, classified in class 726, subclass 3.
- II. Claims 25-31, drawn to a data structure, classified in class 707, subclass 101.

Inventions I and II are drawn to a network architecture and a data structure respectively are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)).

In the instant case, invention (I) a network architecture does not need particulars of a data structure and it can be used simply by specifying a topology of network nodes and (II) has separate utility such as a data structure that can be used in non-network (e.g. single computer) environment.. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I, a network architecture is not required for Group II, a data structure, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

2. A telephone call was made to David A. Morasch (509.242.2173) on 8/25/05 to request an oral election to the above restriction requirement. Group I (*claims 1-24 and 32-74*) has been elected with traverse.
3. Claims 1-24 and 32-74 have been examined.

Oath/Declaration

4. The title of the invention is missing in the declaration and as result it is not clear to which application does the declaration refer.
5. ABSTRACT - OK

Claim Objections

- 6.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 11-12, 16, 19 and 38-40.
8. In various claims applicant recites that a network determines from trusted namespaces (sometimes presented as trusted link data structured comprising namespaces) where to communicate an authentication request. The limitations are not understood. The limitations are presented in various scenarios. For example, in claims 19 and 20 the first network system maintains trusted namespaces corresponding to the second network system and the second network determines from the trusted namespaces where to communicate an authentication request but claim 18 for example suggests that the first network system maintains trusted namespaces corresponding to the second network system and the first network is configured to determine from the trusted namespaces where to communicate an authentication request. In other words, the limitations as claimed suggest that both the first and the second network determine from the same data (the trusted namespaces) that is held at one and the same network (the first network) where to communicate an authentication request, and as a result it is not clear whether a part of operation of the network architecture (e.g. request and receipt of the trusted namespace data) is missing or whether there is some inconsistency of where the trusted namespaces are maintained.

9. Applicant should check all the claims for similar issue so that the claim limitations are clear, consistent and complete.
10. Claim 19 recites: "is configured to determine from the trusted namespaces where to communicate an authentication request resulting from access to a resource, the request received for an account managed in the first network". The limitation is not understood. Commonly an access to a resource is a result of an authentication request and not vice versa. Furthermore, the limitation is convoluted. It is not clear whether "the request" is directed towards "the authentication request" (the only prior recited request) and if so the limitation is not clear. It suggests that access to a resource triggers an authentication request for an account. The limitation as cited makes no sense and is not presented in the drawings and the specification. The examiner believes that claim 19 contains the typographical error, wherein "for" should be treated as "from" as cited in other claims, e.g. claims 11, 38-40 etc.
11. A similar problem is observed in claims 12 and 20.
12. In claim 16 it is not clear whether the limitation: "automatically designate which of the namespaces are trusted by the first network system" refers to the data structure or to the first network system.
13. Furthermore, the claim limitation conflicts with the specification, which explicitly underlines that no automatic trust (and not automatic trust) is used in the invention, e.g. "the namespaces received from the trusted forest are not automatically trusted" (*pg. 19 lines 3-8*) and "all of the domainID records identifying a subordinate domain in the same forest will automatically not be trusted" (*pg. 21 lines 8-9*).

14. There are several main limitations in the seventy four claims presented by applicant, wherein a variety of combinations is built. However, there are essentially only a few main limitations that read on all the limitations presented by applicant. For clarity of prosecution the examiner groups claims by the main limitations, which are explicitly addressed rather than discussing each of the combination that can be derived.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-9, 32-37, 51, 60, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of *Deuby, Olsen and Schultz*.

16. *Deuby, Olsen and Schultz* teach Windows 2000 architecture.

17. As per claims 1-2 *Deuby* teaches Windows 2000 domain tree (*Deuby, Fig. 3.2 pg. 59 and Fig. 3.8 pg. 66*) and a forest that are networks including one or more domains (*Deuby, Fig. 3.10 pg. 68*).

18. A forest is a separate entity and as a result two different forests as shown by *Olsen* (*Olsen, Fig. 4.12, pg. 104 and Fig. 4.9 pg. 102*), and two forests read on: a first

network system including one or more first network system domains and a second network system including one or more second network system domains, the second network system being autonomous from the first network system such that the first network system domains are administratively independent from the second network system domains.

19. *Schultz* teaches transitive trust and explains that Windows NT's group inclusion rules do not allow a local group to be included in any other group and as a result no transitive trust is present in Windows NT (*"Transitive Trust"*, pg. 184).
20. *Olsen* shows a trust link between a first network system root domain and the second network system root domain (*Olsen, Fig. 4.9 pg. 102*), which reads on "a trust link between a first network system root domain and a second network system root domain".
21. *Olsen* does not explicitly state that the trust link provides transitive resource access between the one or more first network system domain and the one or more second network system domains.
22. *Schultz* teaches transitive trust (*Schultz, "Transitive Trust", pg. 184*) and *Deuby* discloses implementation of a transitive trust within Windows 2000 environment teaching that a domain tree starts at the root domain and that requests from one branch of the domain tree to another branch that isn't a parent or child domain must be referred through the root domain (*Deuby, "The Root Domain", pg. 225-226 which also refer the reader to Fig. 3.9 on pg. 67*).

23. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to configure the trust link to provide transitive resource access between the one or more first network system domains and the one or more second network system domains as taught by *Deuby*. One of ordinary skill in the art would have been motivated to perform such a modification in order to allow easy resource access between trusted domains.

24. The transitive link between the roots inherently provides transitive security associations between the one or more first network system domains and the one or more second network system domains (e.g. transitive resource access between the one or more first network system domains and the one or more second network system domains) 1-2.

25. The purpose of a trust link is so that resources from one network are accessible to another network.

26. Any security features e.g. trust links are initiated by administrators, and the administrators are able to administer only their own networks. As a result, administrators of the first network system can only set up a trust link such that an account in the second network system can access resources in the first network system. When both network administrators initiate the transitive trust links the two-way trust links are established (e.g. *Olsen, Fig. 4.9, pg. 102*). 8-10

27. The links inherently allow connection to resources and access domain to resources requires authentication.

28. Claims 10-24, 38-50, 52-59, 61-64, 66-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Deuby, Olsen and Schultz* in view of *Hadfield*.

29. *Deuby, Olsen and Schultz* teach Windows 2000 architecture as discussed above.

Windows 2000 use namespaces that clearly and individually identify resources (e.g. *Olsen, Fig. 4.7 pg. 100 and Fig. 4.3 pg. 94*).

30. *Deuby, Olsen and Schultz* do not explicitly teach that the trust link data structure contains trusted namespaces.

31. *Hadfield* teaches details of setting up trust links and specifically teaches that in order to set up trust links one must define trusting entities (e.g. trusting domains) in trusted entities (e.g. trusted domains) (*Hadfield, pg. 124-125*) and trusted entities must be defined in trusting entities (*Hadfield, pg. 126*).

32. This clearly shows that Windows 2000 environment as taught by *Deuby, Olsen and Schultz* one also must set up trust links by defining trusting entities in trusted entities and trusted entities in trusting entities as taught by *Hadfield*. Even if it was not the case it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to set up a trust link as taught by *Hadfield* for motivation of benefit of allowing trusting entities to identify trusted entities and allowing trusted entities to identify trusting entities.

33. As discussed above *Hadfield* teaches building trust links, which constitutes defining and storing data defining trusted entities in trusting entities and defining trusting entities in trusted entities. Although *Hadfield* does not explicitly teach that the trust links are data structures in the art of computing, data structures are fundamental

concepts in building computer data and are commonly used for the purpose of keeping information. As a result, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to express the trust links as data structures. One of ordinary skill in the art would have been motivated to utilize data structure for a quick access and information retrieval relevant to the trust links.

34. As discussed above the trust link between the first network system and the second network system is established through network system root domains and it would be implicit to configure the root domains to maintain the trust link data structures.

35. *Hadfield* teach Windows NT environment, which is a predecessor of Windows 2000.

As noted above Windows 2000 introduced namespaces to identify clearly and individually the resources. As a result, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include trusted namespaces in the trust link data structures. One of ordinary skill in the art would have been motivated to perform such a modification in order to clearly identify trust relationship entities.

36. It is well known in the art to use namespaces in network architecture. Namespaces allow a quick and precise determination of a resource origin as evidenced by Olsen (*Fig. 4.7, pg. 100 and Fig. 4.9 pg. 102*). For example, Windows 2000 utilize namespaces. In fact on pages 55-57 *Deuby* talks about the benefits of using namespaces. As a result, extending trust links as taught by *Hadfield* to use namespaces would have been an obvious choice given the benefit of a quick and precise resource location resolution.

37. *Deuby, Olsen and Schultz* in view of *Hadfield* do not explicitly teach that a network determines from trusted namespaces where to communicate an authentication request. However, this limitation is implicit. The purpose of establishing a trust relationship between network systems is to allow an object of one network system to access resources of another network system. Access to network systems' resources is restricted to authenticated objects (e.g. *Schultz, "Security Reference Monitor", pg. 68*) and as a result in order to handle a request (whether it is a resource request requiring authentication or simply an authentication request) a network system receiving the request must determine the authentication authority for the particular request. As mentioned above, requests to resources from one network system to another network system (connected with a trust link) are expected. Also, as mentioned above the two network systems as taught by *Deuby, Olsen and Schultz* are administratively independent. As a result, it is implicit that a network system receiving a request to the resource that is not found within the particular network resource will attempt to use any other information to resolve the request (in this case the trust link data structure and based on the findings decides where to communicate the request). Could be to the resource or to failure log or something like this.

38. *Deuby, Olsen and Schultz* in view of *Hadfield* do not explicitly teach identifiers in relationship to trust links.

39. However, it is old and well known in the art to use identifiers to uniquely identify an object (e.g. *Hadfield pg. 166-167*). It would have been obvious to one of ordinary

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skill in the art at the time of applicant's invention to use identifiers in network systems connected with trust links (e.g. include identifiers in trust link data structures) given the of benefit of authenticating and granting permissions to a requester.

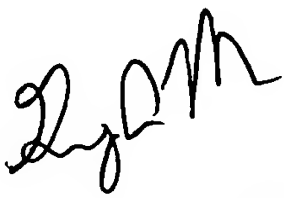
40. Lastly, it would have been implicit to reject any duplicate identifiers (e.g. security identifiers or network system identifiers) in order to ensure the proper identification of an object or an entity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571)272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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